

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 March 2005 (10.03.2005)

PCT

(10) International Publication Number
WO 2005/021185 A2

(51) International Patent Classification⁷:

B22C

(21) International Application Number:

PCT/US2004/027363

(22) International Filing Date: 23 August 2004 (23.08.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/496,674

21 August 2003 (21.08.2003) US

(71) Applicants (for all designated States except US): **IDEA, INC.** [US/US]; 400 Seventh Street, N.W., Suite 600, Washington, DC 20004 (US). **NCC ROADS AS** [NO/NO]; P.O. Box 93 Sentrum, N-0101 Oslo (NO).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HARRIS, Kenneth, Hillel, Peter** [GB/NO]; Trollhaugen 24, N-1384 Asker (NO).

(74) Agent: **HOLMAN, John, C.**; 400 Seventh Street, N.W., Suite 600, Washington, DC 20004 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SLURRIES CONTAINING IRON COMPOUNDS USED IN THE CASTING OF METALS**

(57) Abstract: Slurries containing tri- or polyvalent cations are used for investment casting and making molds as well as core coatings. These slurries are aqueous or alcohol-based containing a mineral component and a polyanionic binder, where at least one of the continuous phase or mineral component contains trivalent or polyvalent cations or cations that are converted into trivalent or polyvalent cations during use. The cationic component is selected from a group consisting of at least one of the metals iron or aluminum. The polyanionic component contains at least one of the group consisting of colloidal silica or one or more water-soluble organic polymers.

WO 2005/021185 A2